

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning on page 1, line 3 as follows:

~~REGULATOR FOR~~ AGENTS FOR REGULATING ADIPONECTIN RECEPTOR
EXPRESSION

Please insert the following new paragraph, beginning on page 1, line 4:

This application is a U.S. national entry of International Application No. PCT/JP2005/003744, filed on March 4, 2005, which claims priority to U.S. Application No. 60/549,561, filed on March 4, 2004.

Please replace the paragraph beginning on page 7, line 8 as follows:

Fig. 1 shows the effects of nutrition control on the expression of AdipoR1/R2 genes. The expression levels of AdipoR1 (A and C) and AdipoR2 (B and D) in liver (A and B) and skeletal muscle (~~A and B~~) (C and D), the blood glucose level (E), and the plasma insulin level (F) of mice were compared under conditions of unrestricted feeding, fasting, and refeeding. The unrestricted feeding group (ad lib) could feed freely (~~lane column~~ 1). The fasted group was separated from food for 48 hrs (~~lane column~~ 2). The refed group was allowed to freely feed for 6 hrs after 48 hrs of fasting (~~lane column~~ 3). Total RNA was prepared from the above tissues using TRIzol. A real-time PCR method was used to quantify AdipoR mRNAs. The primer sets and probes were as described in the Experimental Procedures Examples. The ~~total large relative~~ amount of each AdipoR transcript was obtained by normalization to β -actin transcript amount. The results are shown as the ratio to the AdipoR1 value in the liver of the unrestricted feeding group. Each bar represents the mean \pm standard error (S.E.) (n = 3) (*, p < 0.05; **, p < 0.01; compared with fasted mice).

Please replace the paragraph beginning on page 7, line 28 as follows:

Fig. 3 shows the amount of mRNAs of AdipoR1 (A, C, and E) and AdipoR2 (B, D, and F) in mouse hepatocytes (A and B) or C2C12 myocytes (C-F), treated with or without insulin, incubated with or without LY294002 or PD98059 (C and D) or transfected with adenoviruses containing LacZ or Foxo1 (E and F). Hepatocytes were isolated from mouse liver and incubated

as described in the ~~Experimental Procedures~~ Examples. The cells were then incubated for 6 hrs with or without the indicated concentrations of insulin. Total RNA was prepared and AdipoR mRNAs were quantified as described in the legend of Fig. 1. The results are shown as the ratio to the AdipoR1 value in a control solvent. Each bar represents the mean \pm S.E. (n = 3)(*, p < 0.05, **, p < 0.01, compared with cells treated with solvent).

Please replace the paragraph beginning on page 17, line 7 as follows:

Fifteen-week male C57BL/6 mice obtained from Charles River Breeding Laboratories (~~Washington,~~ Wilmington, MA) were kept in colony cages, maintaining a 12-hr light/dark cycle. The mice were provided or deprived of food for 48 hrs from the start of the dark cycle (9:00 p.m.). The refed group was provided with food after 48 hrs of fasting, and then sacrificed 6 hrs after refeeding for tissue isolation. The mice were given a high fat diet containing 1152 g of fat (Benibana (safflower oil, high oleic acid type), Japan, containing 46% oleic acid (18:1n-9) and 45% linolenic acid (18:2n-6) in total fatty acids), 1191.6 g of casein (No. 19, Oriental Yeast, Tokyo, Japan), 633.6 g of sucrose (No. 13, Oriental Yeast, Tokyo), 50.4 g of a vitamin mix (No. 20 (AIN76), Oriental Yeast), 352.8 g of a mineral mix (No. 20 (AIN76), Oriental Yeast), 201.6 g of cellulose powder (No. 19, Oriental Yeast), 18 g of DL-methionine (Wako Pure Chemical Industries, Osaka, Japan), and 360 ml of water; 3600 g in total(Non-Patent Document 19).

Please replace the paragraph beginning on page 17, line 7 as follows:

STZ treatment made plasma insulin disappear (Fig. 2A), and at the same time, caused a significant increase of plasma glucose (Fig. 2B, ~~lanes~~ columns 1 and 2). The STZ and insulin treated group exhibited a lower plasma glucose value as compared to the group treated with STZ only (Fig. 2B, ~~lanes~~ columns 2 and 3).